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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 10-Q**

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**QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Quarterly Period ended March 31, 2009

or

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 000-31311

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**PDF SOLUTIONS, INC.**

(Exact name of Registrant as Specified in its Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**333 West San Carlos Street, Suite 700**  
**San Jose, California**  
(Address of Principal Executive Offices)

**25-1701361**  
(I.R.S. Employer  
Identification No.)

**95110**  
(Zip Code)

**(408) 280-7900**

(Registrant's Telephone Number, Including Area Code)

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer   
Non-accelerated filer  Smaller reporting company   
(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  
Yes  No

The number of shares outstanding of the Registrant's Common Stock as of May 1, 2009 was 26,261,010.

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**Item 1. Financial Statements.**

**PDF SOLUTIONS, INC.**  
**CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)**

	March 31, 2009	December 31, 2008
	(In thousands, except par values)	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 32,780	\$ 31,686
Short-term investments	6,354	9,051
Accounts receivable, net of allowance of \$254 in 2009 and 2008	20,387	24,989
Prepaid expenses, deferred tax assets, and other current assets	3,639	5,147
Total current assets	63,160	70,873
Property and equipment, net	2,427	2,675
Non-current investments	718	718
Intangible assets, net	4,280	4,730
Deferred tax assets and other non-current assets	626	631
Total assets	<u>\$ 71,211</u>	<u>\$ 79,627</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Current portion of long-term debt	\$ 336	\$ 370
Accounts payable	1,715	1,384
Accrued compensation and related benefits	5,850	6,525
Taxes payable and other accrued liabilities	3,093	3,723
Deferred revenue	2,057	1,792
Billings in excess of recognized revenue	247	748
Total current liabilities	13,298	14,542
Long-term debt	461	512
Long-term taxes payable	3,354	3,356
Long-term other liabilities	1,400	1,447
Total liabilities	<u>18,513</u>	<u>19,857</u>
Stockholders' equity:		
Preferred stock, \$0.00015 par value, 5,000 shares authorized: no shares issued and outstanding	—	—
Common stock, \$0.00015 par value, 70,000 shares authorized: shares issued 29,680 in 2009 and 29,339 in 2008; shares outstanding 26,264 in 2009 and 25,923 in 2008	4	4
Additional paid-in-capital	190,685	189,132
Treasury stock at cost, 3,416 shares in 2009 and 2008	(18,402)	(18,402)
Accumulated deficit	(119,941)	(112,620)
Accumulated other comprehensive income	352	1,656
Total stockholders' equity	52,698	59,770
Total liabilities and stockholders' equity	<u>\$ 71,211</u>	<u>\$ 79,627</u>

*See notes to unaudited condensed consolidated financial statements*

**PDF SOLUTIONS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)**

	<u>Three Months Ended March 31,</u>	
	<u>2009</u>	<u>2008</u>
	<u>(In thousands, except per share amounts)</u>	
Revenues:		
Design-to-silicon-yield solutions	\$ 7,794	\$ 15,024
Gainshare performance incentives	2,396	5,323
Total revenues	<u>10,190</u>	<u>20,347</u>
Cost of design-to-silicon-yield solutions:		
Direct costs of design-to-silicon-yield solutions	6,290	7,766
Amortization of acquired technology	359	631
Total cost of design-to silicon-yield solutions	<u>6,649</u>	<u>8,397</u>
Gross margin	3,541	11,950
Operating expenses:		
Research and development	5,789	9,076
Selling, general and administrative	4,413	6,299
Amortization of other acquired intangible assets	87	194
Restructuring charges	633	—
Total operating expenses	<u>10,922</u>	<u>15,569</u>
Loss from operations	(7,381)	(3,619)
Interest and other income, net	324	489
Loss before taxes	(7,057)	(3,130)
Income tax provision (benefit)	264	(617)
Net loss	<u>\$ (7,321)</u>	<u>\$ (2,513)</u>
Net loss per share — basic and diluted	<u>\$ (0.28)</u>	<u>\$ (0.09)</u>
Weighted average common shares — basic and diluted	<u>26,092</u>	<u>27,840</u>

*See notes to unaudited condensed consolidated financial statements*

**PDF SOLUTIONS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)**

	Three Months Ended	
	March 31,	
	2009	2008
	(In thousands)	
Operating activities:		
Net loss	\$ (7,321)	\$ (2,513)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	414	524
Stock-based compensation expense	1,136	1,983
Losses on disposal of property, plant and equipment	1	2
Amortization of acquired intangible assets	446	825
Tax shortfall related to stock-based compensation expense	—	(11)
Deferred taxes and other assets	(5)	(1,284)
Changes in operating assets and liabilities:		
Accounts receivable, net of allowances	4,595	62
Prepaid expenses and other assets	1,459	(418)
Accounts payable	415	(1,332)
Accrued compensation and related benefits	(609)	(525)
Taxes payable and other accrued liabilities	(624)	849
Deferred revenues	265	1,280
Billings in excess of recognized revenue	(502)	(199)
Net cash used in operating activities	<u>(330)</u>	<u>(757)</u>
Investing activities:		
Purchases of available-for-sale securities	—	(8,848)
Maturities and sales of available-for-sale securities	2,700	7,585
Purchases of property and equipment	(299)	(240)
Net cash provided by (used in) investing activities	<u>2,401</u>	<u>(1,503)</u>
Financing activities:		
Proceeds from exercise of stock options	—	40
Proceeds from Employee Stock Purchase Plan	417	—
Purchases of treasury stock	—	(1,124)
Principal payments on long-term debt	(51)	(56)
Net cash provided by (used in) financing activities	<u>366</u>	<u>(1,140)</u>
Effect of exchange rate changes on cash	<u>(1,343)</u>	<u>1,110</u>
Net increase (decrease) in cash and cash equivalents	1,094	(2,290)
Cash and cash equivalents, beginning of period	31,686	35,315
Cash and cash equivalents, end of period	<u>\$ 32,780</u>	<u>\$ 33,025</u>
Supplemental disclosure of cash flow information:		
Cash paid during the year for:		
Taxes	<u>\$ 232</u>	<u>\$ 244</u>
Interest	<u>\$ 7</u>	<u>\$ 11</u>

*See notes to unaudited condensed consolidated financial statements*

**PDF SOLUTIONS, INC.**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**

**1. BASIS OF PRESENTATION**

*Basis of Presentation*

The interim unaudited condensed consolidated financial statements included herein have been prepared by PDF Solutions, Inc., or the Company, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission, or the SEC, including the instructions to the Quarterly Report on Form 10-Q and Article 10 of Regulation S-X. Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted. The interim unaudited condensed consolidated financial statements reflect, in the opinion of management, all adjustments necessary, (consisting only of normal recurring adjustments) to present a fair statement of results for the interim periods presented. The operating results for any interim period are not necessarily indicative of the results that may be expected for other interim periods or the full fiscal year. The accompanying interim unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto in the Company's Annual Report on Form 10-K for the year ended December 31, 2008.

The preparation of the condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. A significant portion of the Company's revenues require estimates with respect to total costs which may be incurred and revenues earned. Actual results could differ from these estimates.

The condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries after the elimination of all significant intercompany balances and transactions.

*Revenue Recognition*

The Company derives revenue from two sources: Design-to-Silicon-Yield Solutions, which includes Services and Software Licenses, and Gainshare Performance Incentives. The Company recognizes revenue in accordance with the provisions of American Institute of Certified Public Accountants Statement of Position, or SOP, No. 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts* and SOP No. 97-2, *Software Revenue Recognition*, as amended.

*Design-to-Silicon-Yield Solutions* — Revenue that is derived from Design-to-Silicon-Yield solutions comes from services and software licenses. The Company recognizes revenue for each element of Design-to-Silicon-Yield solutions as follows:

*Services* — The Company generates a significant portion of its Design-to-Silicon-Yield solutions revenue from fixed-price solution implementation service contracts delivered over a specific period of time. These contracts require accurate estimation of costs to perform obligations and overall scope of each engagement. Revenue under contracts for solution implementation services is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. Losses on solution implementation contracts are recognized in the period when they become evident. Revisions in profit estimates are reflected in the period in which the conditions that require the revisions become known and can be estimated.

On occasion, the Company has licensed its software products as a component of its fixed-price services contracts. In such instances, the software products are licensed to customers over a specified term of the agreement with support and maintenance to be provided over the license term. Under these arrangements, where vendor-specific objective evidence of fair value, or VSOE, exists for the support and maintenance element, the support and maintenance revenue is recognized separately over the term of the support period. The remaining fee is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. VSOE for maintenance, in these instances, is generally based upon the Company's customary pricing for maintenance when sold separately and is measured by the renewal rate offered to the customer. Under arrangements where software products are licensed as a component of its fixed-price service contract and where VSOE does not exist to allocate a portion of the total fixed-price to the undelivered elements, revenue is recognized for the total fixed-price as the lesser of either the percentage of completion method of contract accounting or ratably over the longer of either the term of the agreement or the support period. Costs incurred under these arrangements are deferred and recognized in proportion to revenue recognized under these arrangements.

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Revenue from related support and maintenance services is recognized ratably over the term of the support and maintenance contract, generally one year, while revenue from consulting, installation and training services is recognized as the services are performed. When bundled with software licenses in multiple element arrangements, support and maintenance, consulting (other than for its fixed-price solution implementations), installation, and training revenue is allocated to each element of a transaction based upon its fair value as determined by the Company's VSOE. VSOE for all elements is generally based upon the Company's customary pricing for such services when sold separately and support and maintenance services is also measured by the renewal rate offered to the customer. When VSOE does not exist to allocate a portion of the total fee to the undelivered elements, revenue is recognized ratably over the longest period of the undelivered elements.

*Software Licenses* — The Company also licenses its software products separately from its integrated solution implementations. For software license arrangements that do not require significant modification or customization of the underlying software, software license revenue is recognized under the residual method when (1) persuasive evidence of an arrangement exists, (2) delivery has occurred, (3) the fee is fixed or determinable, (4) collectibility is probable, and (5) the arrangement does not require services that are essential to the functionality of the software. When arrangements include multiple elements such as support and maintenance, consulting (other than for its fixed price solution implementations), installation, and training, revenue is allocated to each element of a transaction based upon its fair value as determined by the Company's VSOE and such services are recorded as services. VSOE for all elements is generally based upon the Company's customary pricing for such services when sold separately and support and maintenance services is also measured by the renewal rate offered to the customer. When VSOE does not exist to allocate a portion of the total fee to the undelivered elements, revenue is recognized ratably over the longest period of the undelivered elements, and such revenue is recorded as services. Revenue for software licenses with extended payment terms is not recognized in excess of amounts due. For software license arrangements that require significant modification or customization of the underlying software, the software license revenue is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting, and such revenue is recorded as services.

*Gainshare Performance Incentives* — When the Company enters into a contract to provide yield improvement services, the contract usually includes two components: (1) a fixed fee for performance by the Company of services delivered over a specific period of time; and (2) a gainshare performance incentives component where the customer may pay a variable fee, usually after the fixed fee period has ended. Revenue derived from gainshare performance incentives represents profit sharing and performance incentives earned based upon the Company's customers reaching certain defined operational levels established in related solution implementation services contracts. Gainshare performance incentives periods are usually subsequent to the delivery of all contractual services and therefore have no cost to the Company. Due to the uncertainties surrounding attainment of such operational levels, the Company recognizes gainshare performance incentives revenue (to the extent of completion of the related solution implementation contract) upon receipt of performance reports or other related information from the customer supporting the determination of amounts and probability of collection.

*Software Development Costs* — Costs for the development of new software products and substantial enhancements to existing software products are expensed as incurred until technological feasibility has been established, at which time any additional costs would be capitalized in accordance with SFAS No. 86, *Computer Software to be Sold, Leased or Otherwise Marketed*. Because the Company believes its current process for developing software is essentially completed concurrently with the establishment of technological feasibility, no costs have been capitalized to date.

## **2. RECENT ACCOUNTING PRONOUNCEMENTS AND ACCOUNTING CHANGES**

In April 2009, the FASB issued FSP No. 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly*, or FSP No. 157-4. FSP No. 157-4 provides guidance for estimating fair value in accordance with SFAS No. 157, when the volume and level of activity for the asset or liability have significantly decreased. This FSP also includes guidance on identifying circumstances that indicate a transaction is not orderly. FSP No. 157-4 is effective for interim and annual reporting periods ending after June 15, 2009 and will be adopted by the Company in the second quarter of fiscal 2009. The adoption of FAS No. 157-4 is not expected to have a material impact on the Company's operating results and financial position.

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In April 2009, the FASB issued FSP No. FAS 115-2 and FAS 124-2, *Recognition and Presentation of Other-Than-Temporary Impairments*, or FSP FAS 115-2 and 124-2. FSP FAS 115-2 and 124-2 amends the other-than-temporary impairment guidance for debt securities to make the guidance more operational and to improve the presentation and disclosure of other-than-temporary impairments in the financial statements. FSP FAS 115-2 and 124-2 are effective for interim and annual reporting periods ending after June 15, 2009 and will be adopted by the Company in the second quarter of fiscal 2009. The Company is currently evaluating the potential impact, if any, that the adoption of FSP FAS 115-2 and 124-2 will have on its consolidated financial statements.

In April 2009, the FASB issued FSP No. 107, *Disclosures about Fair Value of Financial Instruments*, or FSP No. 107, to require disclosures about fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. This FSP also amends the Accounting Principals Board, or the APB, Opinion No. 28, *Interim Financial Reporting*, to require those disclosures in summarized financial information at interim reporting periods. FSP No. 107 is effective for interim and annual reporting periods ending after June 15, 2009, and will be adopted by the Company in the second quarter of fiscal 2009. The adoption of FSP No 107 is not expected to have a material effect on the Company's operating results and financial position.

Effective January 1, 2009, the Company adopted the provisions of the FASB's SFAS No. 141 (revised 2007), *Business Combinations*, or SFAS No. 141R. SFAS No. 141R establishes principles and requirements for how an acquirer of a business recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any noncontrolling interest in the acquiree, and the goodwill acquired. SFAS No. 141R also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the business combination. The adoption of SFAS No. 141R did not have an effect on the Company's financial results and position.

### 3. INVESTMENTS

The following tables summarize the Company's investments (in thousands):

	March 31, 2009			
	Amortized Costs	Unrealized Holding Gains	Unrealized Holding Losses	Fair Value
Agency obligations	\$ 5,927	\$ 28	\$ —	\$ 5,955
Auction-rate securities	1,000	—	(282)	718
Corporate securities	400	—	(1)	399
	<u>\$ 7,327</u>	<u>\$ 28</u>	<u>\$ (283)</u>	<u>\$ 7,072</u>
Included in short term investments				6,354
Included in non-current investments				718
Total				<u>\$ 7,072</u>

	December 31, 2008			
	Amortized Costs	Unrealized Holding Gains	Unrealized Holding Losses	Fair Value
Commercial paper	\$ 2,043	\$ 4	\$ —	\$ 2,047
Agency obligations	6,544	68	—	6,612
Auction-rate securities	1,000	—	(282)	718
Corporate Securities	400	—	(8)	392
	<u>\$ 9,987</u>	<u>\$ 72</u>	<u>\$ (290)</u>	<u>\$ 9,769</u>
Included in short-term investments				\$ 9,051
Included in non-current investments				718
Total				<u>\$ 9,769</u>

As of March 31, 2009 and December 31, 2008, all securities, other than auction-rate securities held by the Company, had a maturity of one year or less. Please refer to Note 12 "Fair Value" for further discussion of auction-rate securities.

### 4. ACCOUNTS RECEIVABLE

Accounts receivable include amounts that are unbilled at the end of the period. Unbilled accounts receivable are determined on an individual contract basis and were approximately \$9.5 million and \$10.5 million as of March 31, 2009 and December 31, 2008, respectively.



## 5. GOODWILL AND ACQUIRED INTANGIBLE ASSETS

SFAS No. 142, *Goodwill and other Intangible Assets*, requires goodwill to be tested for impairment on an annual basis (or more frequently if indicators of impairment exist) and requires purchased intangible assets other than goodwill to be amortized over their useful lives unless these lives are determined to be indefinite. The Company completed its annual impairment test in the fourth quarter of 2008 and the Company observed impairment indicators during the fourth quarter of 2008 including the trading of common stock below the Company's book value and a further deterioration in the semiconductor industry, brought on by the deteriorating global economic environment. The Company also evaluated its acquired intangible assets for impairment. As a result of the impairment analyses, the Company recorded an impairment charge of \$64 million related to goodwill and \$6.3 million relating to its acquired intangible assets during the fourth quarter of 2008.

The following table provides information relating to the intangible assets and goodwill as of March 31, 2009 and December 31, 2008 (in thousands):

Acquired Identifiable Intangibles	Amortization Period (Years)	December 31, 2008 Net Carrying Amount	Amortization	Foreign Currency Translation	March 31, 2009 Net Carrying Amount
Acquired technology	4 - 5	\$ 3,608	\$ (359)	\$ —	\$ 3,249
Brand name	4	129	(18)	—	111
Customer relationships and backlog	1 - 6	489	(32)	—	457
Patent and applications	7	400	(18)	—	382
Other acquired intangibles	4	104	(19)	(4)	81
Total		\$ 4,730	\$ (446)	\$ (4)	\$ 4,280

	Amortization Period (Years)	December 31, 2007 Net Carrying Amount	Acquisitions	Purchase Price Adjustments	Amortization	Foreign Currency Translation	Impairment	December 31, 2008 Net Carrying Amount
Goodwill	N/A	\$ 65,170	\$ 147	\$ (216)	\$ —	\$ (1,102)	\$ (63,999)	\$ —
Acquired identifiable intangibles:								
Acquired technology	4-5	\$ 9,184	\$ 420	\$ —	\$ (2,576)	\$ —	\$ (3,420)	\$ 3,608
Brand name	4	361	—	—	(128)	—	(104)	129
Customer relationships and backlog	1-6	1,812	1,230	—	(509)	—	(2,044)	489
Patents and applications	7	1,283	—	—	(200)	—	(683)	400
Other acquired intangibles	4	178	—	—	(72)	(2)	—	104
Total		\$ 12,818	\$ 1,650	\$ —	\$ (3,485)	\$ (2)	\$ (6,251)	\$ 4,730

The Company expects the annual amortization of acquired intangible assets to be as follows (in thousands):

Year Ending December 31,	Amount
2009 (remaining nine-month period)	\$ 1,334
2010	1,577
2011	829
2012	435
2013	74
2014 and thereafter	31
Total	\$ 4,280

## 6. STOCKHOLDERS' EQUITY

The Company accounts for stock-based compensation in accordance with SFAS No. 123 (revised 2004), *Share-Based Payment*. Stock-based compensation expenses before taxes related to the Company's employee stock purchase plan and stock-option plans were allocated as follows (in thousands):

	Three Months Ended March 31,	
	2009	2008
Cost of design-to-silicon-yield solutions	\$ 389	\$ 530
Research and development	348	595
Selling, general and administrative	399	858
Stock-based compensation expenses	\$ 1,136	\$ 1,983

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The Company estimated the fair value of share-based payments using the Black-Scholes-Merton option-pricing model with the following weighted average assumptions and weighted average fair values:

	Stock Plans		Employee Stock Purchase Plan	
	Three Months Ended March 31,		Three Months Ended March 31,	
	2009	2008	2009	2008
Expected life (in years)	5.16	5.77	1.25	1.33
Volatility	61.3%	58.2%	79.7%	54.9%
Risk-free interest rate	2.03%	2.91%	1.28%	3.10%
Expected dividend	—	—	—	—
Weighted average fair value per share of options granted during the period	\$ 0.57	\$ 3.84	—	—
Weighted average fair value per share of employee stock issued during the period	—	—	\$ 0.81	\$ 3.60

On March 31, 2009, the Company has in effect the following stock-based compensation plans:

*Stock Plans* — During 2001, the Company terminated the 1996 and 1997 Stock Plans as to future option grants, and adopted the 2001 Stock Plan. Under the 2001 Stock Plan, on January 1 of each year, starting with year 2002, the number of shares in the reserve will increase by the lesser of (1) 3,000,000 shares, (2) 5% of the outstanding common stock on the last day of the immediately preceding year, or (3) the number of shares determined by the board of directors. Under the 2001 Stock Plan, the Company may grant stock purchase rights and stock options to purchase shares of common stock to employees, directors and consultants. The exercise price for stock options must generally be at prices not less than the fair market value at the date of grant for incentive stock options and not less than 85% of fair market value for non-statutory stock options. Stock options generally expire ten years from the date of grant and become vested and exercisable ratably over a four-year period.

Stock option activity under the Company's plan during the three months ended March 31, 2009 was as follows:

	Number of Options (in thousands)	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in thousands)
Outstanding, January 1, 2009	4,412	\$ 8.93		
Granted	30	1.16		
Exercised	—	—		
Canceled	(19)	8.73		
Expired	(53)	9.58		
Outstanding, March 31, 2009	4,370	8.87	6.97	\$ 23
Vested and expected to vest	4,071	8.96	6.84	\$ 20
Exercisable at March 31, 2009	2,618	9.54	5.80	\$ 11

The aggregate intrinsic value in the table above represents the total intrinsic value based on the Company's closing stock price of \$1.57 as of March 31, 2009, which would have been received by the option holders had all "in-the-money" option holders exercised their options as of that date. There were no stock options exercised during the three months ended March 31, 2009.

As of March 31, 2009, there was \$6.2 million of total unrecognized compensation cost related to nonvested stock options. That cost is expected to be recognized over a weighted average period of 2.5 years. The total fair value of shares vested during the three months ended March 31, 2009 was \$838,000.

Nonvested shares (restricted stock units) activity during the three months ended March 31, 2009 were as follows:

	Shares (in thousands)	Weighted Average Grant Date Fair Value
Nonvested, January 1, 2009	852	\$ 8.64
Granted	—	—
Vested	(8)	10.73
Forfeited	(9)	12.36
Nonvested, March 31, 2009	835	8.63

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As of March 31, 2009, there was \$4.0 million of total unrecognized compensation cost related to nonvested restricted stock units. That cost is expected to be recognized over a weighted average period of 3.3 years. The total compensation expense related to shares expected to vest during the three months ended March 31, 2009 was \$367,000.

*Employee Stock Purchase Plan* — In July 2001, the Company adopted an Employee Stock Purchase Plan, or Purchase Plan, under which eligible employees can contribute up to 10% of their compensation, as defined in the Purchase Plan, towards the purchase of shares of PDF common stock at a price of 85% of the lower of the fair market value at the beginning of the offering period or the end of each six-month offering period. Under the Purchase Plan, on January 1 of each year, starting with 2002, the number of shares reserved for issuance will automatically increase by the lesser of (1) 675,000 shares, (2) 2% of the Company's outstanding common stock on the last day of the immediately preceding year, or (3) the number of shares determined by the board of directors. For the three months ended March 31, 2009, the Purchase Plan compensation expense was \$59,000.

*Stock Repurchase Program* — On March 26, 2003, the Company's Board of Directors approved a share repurchase program to purchase up to \$10.0 million of its outstanding common stock. The program was completed in August 2007 with 988,000 shares repurchased at the average price of \$10.12 per share. On October 29, 2007, the Board of Directors approved a new program to repurchase up to an additional \$10.0 million of the Company's common stock on the open market. The right to repurchase stock under this program will expire on October 29, 2010. As of March 31, 2009, 2.4 million shares have been repurchased at the average price of \$3.46 per share under this program and \$1.6 million remained available for future repurchases.

## 7. RESTRUCTURING

In 2008, the Company announced two restructuring plans to better allocate its resources to improve its operational results in light of current market conditions, one on April 29, 2008 and the other on October 28, 2008.

For the plan announced on April 29, 2008, the Company recorded restructuring charges of \$1.5 million during the three months ended June 30, 2008, which primarily consisted of employee severance costs of \$1.4 million. All severance costs and related fees were paid out and the activities were completed as of March 31, 2009.

For the plan announced on October 28, 2008, the Company recorded restructuring charges of \$1.5 million during the three months ended December 31, 2008 and an additional \$633,000 during the three months ended March 31, 2009 and expect to incur additional charges as part of the continuing cost control efforts during the three months ending June 30, 2009. The restructuring charges primarily consisted of employee severance costs of \$1.5 million and facility exit costs of \$985,000. The following table summarizes the activities of these restructuring liabilities (in thousands):

<b>Restructuring Announced on October 28, 2008</b>	<b>Severance</b>	<b>Facility Exit</b>	<b>Professional and Other Fees</b>	<b>Total</b>
Balance, January 1, 2009	\$ 860	\$ 1,108	\$ 31	\$ 1,999
Restructuring charges	582	—	51	633
Payments	(771)	(110)	(50)	(931)
Balance, March 31, 2009	<u>\$ 671</u>	<u>\$ 998</u>	<u>\$ 32</u>	<u>\$ 1,701</u>

As of March 31, 2009, of the remaining accrual of \$1.7 million, \$1.2 million was included in accrued liabilities and \$544,000 was included in long-term other liabilities. Accrued severance of \$671,000 and accrued professional and other fees of \$28,000 are expected to be paid out in the second quarter of 2009. Accrued facility exit costs will be paid in accordance with the lease payment schedule through 2013.

## 8. INCOME TAXES

The Company accounts for temporary differences between the book and tax basis of assets and liabilities by recording deferred tax assets and liabilities in accordance with SFAS No. 109, *Accounting for Income Taxes*, and Financial Interpretation No. 48, *Accounting for Uncertainty in Income Taxes — An Interpretation of FASB Statement No. 109*, or FIN No. 48. The Company must assess the likelihood that its deferred tax assets will be recovered from future taxable income and, to the extent the Company believes that recovery is not likely, the Company must establish a valuation allowance. Changes in the Company's net deferred tax assets, less offsetting valuation allowance, in a period are recorded through the income tax provision in the condensed consolidated statements of operations.

In accordance with FIN No. 48, the Company classifies its liabilities related to unrecognized tax benefits as long-term. The Company includes interest and penalties related to unrecognized tax benefits within the Company's income tax provision (benefit). As of March 31, 2009 and December 31, 2008, the Company had \$636,000 and \$562,000, respectively, accrued for payment of interest and penalties related to unrecognized tax benefits.

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The Company's total amount of unrecognized tax benefits as of March 31, 2009 was \$8.4 million, of which \$2.9 million, if recognized, would affect the Company's effective tax rate. The Company's total amount of unrecognized tax benefits as of December 31, 2008 was \$8.2 million of which \$2.8 million, if recognized, would affect the Company's effective tax rate. As of March 31, 2009, the Company has recognized a net amount of \$3.4 million as long-term taxes payable for unrecognized tax benefits in its consolidated balance sheets. The Company does not expect the change in unrecognized tax benefits over the next twelve months to materially impact its results of operations and financial position.

The Company conducts business globally and, as a result, files numerous consolidated and separate income tax returns in the U.S. federal, various state and foreign jurisdictions. Because the Company used some of the tax attributes carried forward from previous years to tax years that are still open, statutes of limitation remain open for all tax years to the extent of the attributes carried forward into tax year 2001 for federal tax purposes and tax year 2002 for California tax purposes. With few exceptions, the Company is no longer subject to income tax examinations in its major foreign subsidiaries' jurisdictions for years before 2004.

### 9. NET LOSS PER SHARE

Basic net loss per share is computed by dividing net loss by the weighted average common shares outstanding for the period (excluding outstanding stock options and shares subject to repurchase). Diluted net loss per share reflects the weighted average common shares outstanding plus the potential effect of dilutive securities which are convertible into common shares (using the treasury stock method), except in cases where the effect would be anti-dilutive. The following is a reconciliation of the numerators and denominators used in computing basic and diluted net loss per share (in thousands, except per share amount):

	Three Months Ended March 31,	
	2009	2008
Net loss	\$ (7,321)	\$ (2,513)
Denominator for basic calculation:		
Weighted average common shares outstanding- basic	26,092	27,840
Dilutive items		
Stock options outstanding	—	—
Denominator for diluted computation	26,092	27,840
Net loss per share — basic and diluted	\$ (0.28)	\$ (0.09)

### 10. COMPREHENSIVE LOSS

The components of comprehensive loss are as follows (in thousands):

	Three Months Ended March 31,	
	2009	2008
Net loss	\$ (7,321)	\$ (2,513)
Unrealized loss on investments, net of income tax effects	(37)	(42)
Foreign currency translation adjustments, net of income tax effects	(1,267)	1,958
Comprehensive loss	\$ (8,625)	\$ (597)

### 11. CUSTOMER AND GEOGRAPHIC INFORMATION

SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*, establishes standards for reporting information about operating segments. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or group, in deciding how to allocate resources and in assessing performance.

The Company's chief operating decision maker, the Chief Executive Officer, reviews discrete financial information presented on a consolidated basis for purposes of making operating decisions and assessing financial performance. Accordingly the Company considers itself to be in one operating segment, specifically the licensing and implementation of yield improvement solutions for integrated circuit manufacturers.

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The Company had revenues from individual customers in excess of 10% of total revenues as follows:

Customer	Three Months Ended March 31,	
	2009	2008
A	29%	16%
B	10%	*%
C	*%	18%

\* represents less than 10%

The Company had gross accounts receivable from the following individual customers in excess of 10% of gross accounts receivable as follows:

Customer	March 31, 2009	December 31, 2008
A	19%	17%
B	12%	*%
C	*%	12%
D	15%	11%
E	11%	*%
F	*%	12%

\* represents less than 10%

Revenues from customers by geographic area are as follows (in thousands):

	Three Months Ended March 31,	
	2009	2008
Asia	\$ 5,458	\$ 10,399
United States	4,066	5,608
Europe	666	4,340
Total	\$ 10,190	\$ 20,347

As of March 31, 2009 and December 31, 2008, long-lived assets related to PDF Solutions S.A.S. (formerly Si Automation S.A.), located in France, totaled \$273,000 and \$336,000, respectively. The majority of the Company's remaining long-lived assets are in the United States.

## 12. FAIR VALUE

Under SFAS No. 157, fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. SFAS No. 157 refers to the multiple assumptions used to value financial instruments as inputs, and establishes hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs reflect assumptions market participants would use in pricing an asset or liability based on market data obtained from independent sources while unobservable inputs reflect a reporting entity's pricing based upon its own market assumptions. These inputs are ranked according to a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels.

Level 1 — Inputs are quoted prices in active markets for identical assets or liabilities.

Level 2 — Inputs are quoted prices for similar assets or liabilities in an active market, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable and market-corroborated inputs which are derived principally from or corroborated by observable market data.

Level 3 — Inputs are derived from valuation techniques in which one or more significant inputs or value drivers are unobservable.

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The following table represents the Company's assets measured at fair value on a recurring basis as of March 31, 2009 and the basis for that measurement (in thousands):

Assets	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Money market mutual funds	\$ 26,569	\$ 26,569	\$ —	\$ —
Agency Obligations	5,955	—	5,955	—
Corporate Securities	399	—	399	—
Auction-rate securities	718	—	—	718
<b>Total</b>	<b>\$ 33,641</b>	<b>\$ 26,569</b>	<b>\$ 6,354</b>	<b>\$ 718</b>

The Company holds investments in auction-rate securities, or ARS, which are variable rate debt instruments whose interest rates are reset through a "dutch" auction process at regular intervals, typically every 28 days. All ARS are backed by pools of student loans guaranteed by governmental agencies and private entities, and were rated AAA/Aaa at the date of acquisition. The liquidity and fair value of these securities has been reduced by the uncertainty in the credit markets and the exposure of these securities to the financial condition of bond insurance companies, as evidenced by the rating downgrade of MBIA (bond insurer on one of the Company's ARS) from Aaa to A2, by Moody's Investor Services on June 19, 2008. All ARS have failed to sell at auction since February 2008, and as a result, their interest rates were reset to the maximum LIBOR + 150 basis points. The only activity since February 2008 was the repurchase of \$500,000 of ARS at par by issuers. As a result of these auction failures, there was limited active market with observable prices for these securities as of March 31, 2009; therefore, the Company computed the fair value of these securities based on a discounted cash flow model, using significant level 3 inputs, to take into account the lack of liquidity. The Company does not believe that the student loans backing these securities, the principal of these assets, is at risk. Furthermore, the Company intends to hold these securities until the credit markets recover and these securities resume pricing at or near par. As a result, the Company recorded a temporary impairment to other comprehensive income and classified these securities as non-current investments. The valuation may be revised in future periods as market conditions evolve.

The following represents the reconciliation of the beginning and ending balance of assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) during the three months ended March 31, 2009 (in thousands):

	Available-For-Sale Securities
Beginning balance, January 1, 2009	\$ 718
Total gains and losses (realized / unrealized):	
Included in earnings	—
Included in other comprehensive income, before income tax effects	—
Purchases, issuances, and settlements	—
Transfers, in and/or (out) of Level 3	—
Ending balance, March 31, 2009	\$ 718
The amount of total gains or losses for the period included in earnings attributable to the change in unrealized gains or losses relating to assets still held at March 31, 2009	\$ —

**Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.**

**Forward-Looking Statements**

The following discussion of our financial condition and results of operations contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. In some cases, you can identify forward-looking statements by terminology such as "may," "could," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential" or "continue," the negative effect of terms like these or other similar expressions. Any statement concerning future financial performance (including future revenues, earnings or growth rates), ongoing business strategies or prospects, and possible actions taken by us or our subsidiaries, which may be provided by us are also forward-looking statements. These forward-looking statements are only predictions. Forward-looking statements are based on current expectations and projections about future events and are inherently subject to a variety of risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from those anticipated or projected. All forward-looking statements included in this document are based on information available to us on the date of filing and we further caution investors that our business and financial performance are subject to substantial risks and uncertainties. We assume no obligation to update any such forward-looking statements. In evaluating these statements, you should specifically consider various factors, including the risk factors set forth in Part II, Item 1A and set forth at the end of Item 1A in our Annual Report on Form 10-K for the year ended December 31, 2008 filed with the Securities and Exchange Commission on March 16, 2009.

## Overview

We analyze our customers' integrated circuit, or IC design and manufacturing processes to identify, quantify, and correct the issues that cause yield loss to improve our customers' profitability by improving time-to-market, increasing yield and reducing total design and manufacturing costs. We package our solutions in various ways to meet our customers' specific business and budgetary needs, each of which provides us various revenue streams. We receive a mix of fixed fees and variable, performance-based fees for the vast majority of our Integrated Yield Ramp offerings. The fixed fees are typically reflective of the length of time and the resources needed to characterize a customer's manufacturing process and receive preliminary results of proposed yield improvement suggestions. The variable fee, or what we call gainshare performance incentives, usually depends on our achieving certain yield targets by a deadline. Variable fees are currently typically tied to wafer volume on the node size of the manufacturing facility where we performed the yield improvement. We receive license fees and service fees for related installation, integration, training, and maintenance and support services for our software that we license on a stand-alone basis.

### *History*

From our incorporation in 1992 through late 1995, we were primarily focused on research and development of our proprietary manufacturing process simulation and yield and performance modeling software. From late 1995 through late 1998, we continued to refine and sell our software, while expanding our offering to include yield and performance improvement consulting services. In late 1998, we began to sell our software and consulting services, together with our newly developed proprietary technologies, under the term Design-to-Silicon-Yield solutions, reflecting our current business model. In April 2000, we expanded our research and development team and gained additional technology by acquiring AISS. AISS now operates as PDF Solutions, GmbH, a German company, which continues to develop software and provide development services to the semiconductor industry. In July 2001, we completed the initial public offering of our common stock. In 2003, we enhanced our product and service offerings, including increased software applications, through the acquisitions of IDS and WaferYield. In 2006, we further complemented our technology offering by acquiring Si Automation S.A. and adding its Fraud Detection and Classification, or FDC software capabilities to our integrated solution. In 2007, we increased our IP solutions portfolio, particularly in logic design technology, through the acquisition of Fabbrix, Inc. In 2008, we solidified our market leading position in the FDC software market, particularly in Korea, and now provide complementary technology to our mæstria product through the acquisition of certain assets of Triant.

### *Industry Trend*

Subject to the current general economic downturn, demand for consumer electronics and communications devices continues to drive technological innovation in the semiconductor industry as the need for products with greater performance, lower power consumption, reduced costs and smaller size continues to grow with each new product generation. In addition, advances in computing systems and mobile devices have fueled demand for higher capacity memory chips. To meet these demands, IC manufacturers and designers are constantly challenged to improve the overall performance of their ICs by designing and manufacturing ICs with more embedded applications to create greater functionality while lowering cost per transistor. As a result, both logic and memory manufacturers have migrated to more and more advanced manufacturing nodes, capable of integrating more devices with higher performance, higher density, and lower power. As this trend continues, companies will continually be challenged to improve process capabilities to optimally produce ICs with minimal random and systematic yield loss, which is driven by the lack of compatibility between the design and its respective manufacturing process. We believe that as volume production of deep submicron ICs continues to grow, the difficulties of integrating IC designs with their respective processes and ramping new manufacturing processes will create a greater need for products and services that address the yield loss and escalating cost issues the semiconductor industry is facing today and will face in the future.

### *Financial Highlights*

The semiconductor industry is currently experiencing significant challenges, primarily due to a deteriorating macroeconomic environment, and it is unclear when a turnaround may occur. As a result of this downturn, some of our customers faced financial challenges in fiscal 2008 and may continue to face such challenges in fiscal 2009. The current economic downturn has contributed to the substantial reduction in our revenue and could continue to harm our business, operating results and financial condition.

We plan operating expense levels primarily based on forecasted revenue levels. To partially offset the impact of our expected decrease in revenue, we have implemented several cost savings initiatives, including reducing headcount and other discretionary spending. During the year ended December 31, 2008, we initiated two restructuring plans to improve our operating results and to align our cost structure with expected revenue.

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Financial highlights for the three months ended March 31, 2009 were as follows:

- Total revenue for the three months ended March 31, 2009 was \$10.2 million, a decrease of \$10.2 million, or 50% compared to the three months ended March 31, 2008. Design-to-Silicon-Yield solutions revenue for the three months ended March 31, 2009 was \$7.8 million, a decrease of \$7.2 million, or 48%, compared to \$15.0 million for the three months ended March 31, 2008. The decrease in Design-to-Silicon Yield solutions revenue was primarily the result of lower bookings, as customers have delayed purchases for capacity expansion and investment in leading-edge technology. The dramatic downturn in the semiconductor industry combined with weakness in worldwide economies has been the primary contributors to this reduction. Gainshare performance incentives revenue for the three months ended March 31, 2009 was \$2.4 million, a decrease of \$2.9 million, or 55%, compared to \$5.3 million for the three months ended March 31, 2008. The decrease in revenue from Gainshare performance incentives was primarily the result of reduced volumes in customer manufacturing facilities.
- Net loss for the three months ended March 31, 2009 was \$7.3 million, compared to \$2.5 million for the three months ended March 31, 2008. The increase in net loss was primarily attributable to a significant decrease in revenue, partially offset by decreases in operating expenses as the result of our cost control efforts.
- Net loss per basic and diluted share was \$0.28 for the three months ended March 31, 2009 compared to \$0.09 for the three months ended March 31, 2008, an increase in net loss of \$0.19 per basic and diluted share.
- Cash, cash equivalents and investments decreased \$1.6 million to \$39.9 million during the three months ended March 31, 2009, primarily due to the negative effect of changes in foreign currency exchange rates.

### **Critical Accounting Policies**

Financial Reporting Release No. 60 requires all companies to include a discussion of critical accounting policies or methods used in the preparation of financial statements. Item 7 of the consolidated financial statements on the Annual Report on Form 10-K for the year ended December 31, 2008, includes a summary of the significant accounting policies and methods used in the preparation of our condensed consolidated financial statements. The following is a brief discussion of the more significant accounting policies and methods that we use.

#### ***General***

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in conformity with accounting principles generally accepted in the United States of America. Our preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenues and expenses during the reporting periods. We based our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. The most significant estimates and assumptions relate to revenue recognition, software development costs, recoverability of goodwill and acquired intangible assets, estimated useful lives of acquired intangibles, stock based compensation, and the realization of deferred tax assets. Actual amounts may differ from such estimates under different assumptions or conditions.

#### ***Revenue Recognition***

We derive revenue from two sources: Design-to-Silicon-Yield Solutions, which includes Services and Software Licenses, and Gainshare Performance Incentives. We recognize revenue in accordance with the provisions of American Institute of Certified Public Accountants' Statement of Position, or SOP, No. 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts* and SOP No. 97-2, *Software Revenue Recognition*, as amended.

*Design-to-Silicon-Yield Solutions* — Revenue that is derived from Design-to-Silicon-Yield solutions comes from services and software licenses. We recognize revenue for each element of Design-to-Silicon-Yield solutions as follows:



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*Services* — We generate a significant portion of our Design-to-Silicon-Yield solutions revenue from fixed-price solution implementation service contracts delivered over a specific period of time. These contracts require accurate estimation of cost to perform obligations and overall scope of each engagement. Revenue under contracts for solution implementation services is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. Losses on solution implementation contracts are recognized in the period when they become evident. Revisions in profit estimates are reflected in the period in which the conditions that require the revisions become known and can be estimated. If we do not accurately estimate the resources required or the scope of work to be performed, or do not manage the projects properly within the planned period of time or satisfy our obligations under contracts, resulting contract margins could be materially different than those anticipated when the contract was executed. Any such reductions in contract margin could have a material negative impact on our operating results.

On occasion, we have licensed our software products as a component of our fixed price services contracts. In such instances, the software products are licensed to customers over a specified term of the agreement with support and maintenance to be provided over the license term. Under these arrangements, where vendor-specific objective evidence of fair value (“VSOE”) exists for the support and maintenance element, the support and maintenance revenue is recognized separately over the term of the supporting period. The remaining fee is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. VSOE for maintenance, in these instances, is generally established based upon a negotiated renewal rate. Under arrangements where software products are licensed as a component of its fixed-price service contract and where VSOE does not exist to allocate a portion of the total fixed-price to the undelivered elements, revenue is recognized for the total fixed-price as the lesser of either the percentage of completion method of contract accounting or ratably over the longer of either the term of the agreement or the supporting period. Costs incurred under these arrangements are deferred and recognized in proportion to revenue recognized under these arrangements.

Revenue from related support and maintenance services is recognized ratably over the term of the support and maintenance contract, generally one year, while revenue from consulting, installation and training services is recognized as services are performed. When bundled with software licenses in multiple element arrangements, support and maintenance, consulting (other than for our fixed price solution implementations), installation, and training revenue is allocated to each element of a transaction based upon its fair value as determined by our VSOE. VSOE is generally established for maintenance based upon negotiated renewal rates while VSOE for consulting, installation, and training is established based upon our customary pricing for such services when sold separately. When VSOE does not exist to allocate a portion of the total fee to the undelivered elements, revenue is recognized ratably over the longest service period of the undelivered elements

*Software Licenses* — We also license our software products separate from our integrated solution implementations. For software license arrangements that do not require significant modification or customization of the underlying software, software license revenue is recognized under the residual method when (1) persuasive evidence of an arrangement exists, (2) delivery has occurred, (3) the fee is fixed or determinable, (4) collectibility is probable, and (5) the arrangement does not require services that are essential to the functionality of the software. When arrangements include multiple elements such as support and maintenance, consulting (other than for our fixed price solution implementations), installation, and training, revenue is allocated to each element of a transaction based upon its fair value as determined by our VSOE and such services are recorded as services. VSOE is generally established for maintenance based upon negotiated renewal rates while VSOE for consulting, installation and training services is established based upon our customary pricing for such services when sold separately. When VSOE does not exist to allocate a portion of the total fee to the undelivered elements, revenue is recognized ratably over the longest period of the undelivered elements. Revenue for software licenses with extended payment terms is not recognized in excess of amounts due. For software license arrangements that require significant modification or customization of the underlying software, the software license revenue is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting, and such revenue is recorded as services.

*Gainshare Performance Incentives* — When we enter into a contract to provide yield improvement services, the contract usually includes two components: (1) a fixed fee for performance by us of services delivered over a specific period of time; and (2) a gainshare performance incentives component where the customer may pay a variable fee, usually after the fixed fee period has ended. Revenue derived from gainshare performance incentives represents profit sharing and performance incentives earned based upon our customers reaching certain defined operational levels established in related solution implementation service contracts. Gainshare performance incentives periods are usually subsequent to the delivery of all contractual services and therefore have no cost to us. Due to the uncertainties surrounding attainment of such operational levels, we recognize gainshare performance incentives revenue (to the extent of completion of the related solution implementation contract) upon receipt of performance reports or other related information from our customers supporting the determination of amounts and probability of collection. Gainshare performance incentives revenue is dependent on many factors which are outside our control, including among others, continued production of the related ICs by our customers, sustained yield improvements by our customers and our ability to enter into new Design-to-Silicon-Yield solutions contracts containing provisions for gainshare performance incentives.

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**Software Development Costs**

Costs for the development of new software products and substantial enhancements to existing software products are expensed as incurred until technological feasibility has been established, at which time any additional costs would be capitalized in accordance with Statement of Accounting Standards, or SFAS No. 86, *Computer Software to be Sold, Leased or Otherwise Marketed*. Because we believe our current process for developing software is essentially completed concurrently with the establishment of technological feasibility, no costs have been capitalized to date.

**Goodwill and Acquired Intangible Assets**

As of March 31, 2009, the recorded value of our goodwill and intangible assets was zero and \$4.3 million, respectively. In assessing the valuation and recoverability of our goodwill and intangible assets, we must make assumptions regarding estimated future cash flows to be derived from the acquired assets. If these estimates or their related assumptions change in the future, we may be required to record impairment charges for these assets, which would have a material adverse effect on our operating results. We evaluate goodwill for impairment pursuant to the provisions of SFAS No. 142, *Goodwill and Other Intangible Assets*. We have selected December 31 as the date upon which to perform our annual testing for impairment. During the fourth quarter of fiscal 2008, we observed impairment indicators, relating to our long-lived assets, including the trading of our common stock below our book value and a further deterioration in the semiconductor industry brought on by the deteriorating global economic environment which triggered the necessity of an impairment test for our intangible and long lived assets as of December 31, 2008. In accordance with SFAS No. 144, we assessed the recoverability of our intangible and long-lived assets by comparing the carrying value of those intangible and long lived assets to the undiscounted cash flows of each asset group. The analysis indicated that the carrying value of certain assets exceeded the undiscounted cash flows. As such, we determined that certain acquired intangible assets were impaired. We measured the amount of impairment by calculating the amount by which the carrying value of the intangible assets exceeded their estimated fair values, which were based on projected discounted future net cash flows. As a result of this impairment analysis, we recorded an impairment charge of \$6.3 million during the fourth quarter of 2008.

We completed our annual impairment analysis of goodwill as of December 31, 2008, including the second step prescribed by SFAS No. 142. As part of the second step of our goodwill impairment test, we determined the fair value of our goodwill by allocating the estimated fair value of our reporting unit to our assets and liabilities, including the estimated fair value of our unrecorded intangible assets, on a fair value basis. After allocating its assets and liabilities on a fair value basis, we recorded an impairment of all of our goodwill of \$64.0 million.

We are currently amortizing our acquired intangible assets over estimated useful lives of one to seven years, which are based on the estimated period of benefit to be derived from such assets. However, a decrease in the estimated useful lives of such assets would cause additional amortization expense or an impairment of such asset in future periods.

**Income Taxes**

Realization of deferred tax assets is dependent on our ability to generate future taxable income and utilize tax planning strategies. We have recorded a deferred tax asset in the amount that is more likely than not to be realized based on current estimations and assumptions. We evaluate the valuation allowance on a quarterly basis. Any resulting changes to the valuation allowance will result in an adjustment to income in the period the determination is made.

**Stock-Based Compensation**

We account for stock-based compensation in accordance with SFAS No. 123 (revised 2004), *Share-Based Payment*, or SFAS No. 123R. Under the provisions of SFAS No. 123R, stock-based compensation cost is estimated at the grant date based on the award's fair-value as calculated by the Black-Scholes-Merton, or BSM, option-pricing model and is recognized as expense ratably over the requisite service period. The BSM model requires various highly judgmental assumptions including volatility, forfeiture rates, and expected option life. If any of the assumptions used in the BSM model change significantly, stock-based compensation expense may differ materially in the future from that recorded in the current period.

**Recent Accounting Pronouncements and Accounting Changes**

See Note 2 of "Notes to Condensed Consolidated Financial Statements (Unaudited)" of this Quarterly Report on Form 10-Q for a description of recent accounting pronouncements and accounting changes, including the expected dates of adoption and estimated effects, if any, on our consolidated financial statements.

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**Results of Operations**

The following table sets forth, for the periods indicated, the percentage of total revenue represented by the line items reflected in our condensed consolidated statements of operations:

	Three Months Ended March 31,	
	2009	2008
Revenues:		
Design-to-silicon-yield solutions	76%	74%
Gainshare performance incentives	24	26
Total revenues	100%	100%
Cost of design-to-silicon-yield solutions:		
Direct costs of design-to-silicon-yield solutions	62	38
Amortization of acquired technology	3	3
Total cost of design-to silicon-yield solutions	65	41
Gross margin	35	59
Operating expenses:		
Research and development	57	45
Selling, general and administrative	43	31
Amortization of other acquired intangible assets	1	1
Restructuring charges	6	—
Total operating expenses	107	77
Loss from operations	(72)	(18)
Interest and other income, net	3	3
Loss before taxes	(69)	(15)
Income tax provision (benefit)	3	(3)
Net loss	(72)%	(12)%

**Comparison of the Three Months Ended March 31, 2009 and 2008**

Revenue	Three Months Ended March 31,		\$ Change	% Change	Three Months Ended March 31,	
	2009	2008			2009 % of Revenue	2008 % of Revenue
<i>(In thousands, except for %'s)</i>						
Design-to-silicon-yield solutions	\$ 7,794	\$ 15,024	\$ (7,230)	(48)%	76%	74%
Gainshare performance incentives	2,396	5,323	(2,927)	(55)%	24%	26%
Total	\$ 10,190	\$ 20,347	\$ (10,157)	(50)%	100%	100%

**Design-to-Silicon-Yield Solutions.** Design-to-Silicon-Yield solutions revenue is derived from services (including solution implementations, software support and maintenance, consulting, and training) and software licenses, provided during our customer yield improvement engagements and solution product sales. Design-to-Silicon-Yield solutions revenue decreased \$7.2 million for the three months ended March 31, 2009 compared to the three months ended March 31, 2008, primarily due to a decrease of \$4.2 million in fixed fee integrated solutions and a decrease of \$3.0 million in software and software related services. The decreases were primarily the result of lower bookings, as customers have delayed purchases for capacity expansion and investment in leading edge technology. The dramatic downturn in the semiconductor industry combined with weakness in worldwide economies have been the primary contributors to this shortfall. Our Design-to-Silicon-Yield revenue may fluctuate in the future and is dependent on a number of factors including our ability to obtain new customers at emerging technology nodes.

**Gainshare Performance Incentives.** Gainshare performance incentives revenue represents profit sharing and performance incentives earned based upon our customers reaching certain defined operational levels. Revenue derived from gainshare performance incentives decreased \$2.9 million for the three months ended March 31, 2009 compared to the three months ended March 31, 2008, primarily due to decreases in wafer volumes at our customer sites. The revenue from gainshare performance incentives was generated from six customers and seven engagements for the three months ended March 31, 2009 and seven customers and ten engagements for the three months ended March 31, 2008. Our gainshare performance incentives revenue may continue to fluctuate from period to period. Gainshare performance incentives revenue is dependent on many factors that are outside our control, including among others, continued production of ICs by our customers, sustained yield improvements by our customers, and our ability to enter into new Design-to-Silicon-Yield solutions contracts containing provisions for gainshare performance incentives.

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<b>Cost of Design-to-Silicon Yield Solution</b> (In thousands, except for %'s)	<b>Three Months Ended March 31,</b>		<b>\$</b>	<b>%</b>	<b>Three Months Ended March 31,</b>	
	<b>2009</b>	<b>2008</b>			<b>% of</b>	<b>2008</b>
			<b>Change</b>	<b>Change</b>	<b>Revenue</b>	<b>% of</b>
Direct costs of design-to-silicon-yield solutions	\$ 6,290	\$ 7,766	\$ (1,476)	(19)%	62%	38%
Amortization of acquired technology	359	631	(272)	(43)%	3%	3%
<b>Total</b>	<b>\$ 6,649</b>	<b>\$ 8,397</b>	<b>\$ (1,748)</b>	<b>(21)%</b>	<b>65%</b>	<b>41%</b>

*Costs of Design-to-Silicon-Yield Solutions.* Costs of Design-to-Silicon-Yield solutions consist of costs incurred to provide and support our services, costs recognized in connection with licensing our software, and amortization of acquired technology.

*Direct costs of Design-to-Silicon-Yield Solutions.* Direct costs of Design-to-Silicon-Yield solutions consist of services costs and software licenses costs. Services costs consist of material, labor, overhead costs, and stock-based compensation charges associated with solution implementations. Costs include purchased materials, employee compensation and related benefits, travel and facilities-related costs. Software license costs consist of costs associated with licensing third-party software sold in conjunction with our software products and expenses incurred to produce and distribute our product documentation. Direct costs of Design-to-Silicon-Yield solutions decreased \$1.5 million for the three months ended March 31, 2009 compared to the three months ended March 31, 2008, primarily due to a decrease of \$302,000 in travel expenses, a decrease of \$229,000 in the use of outside consultants, and decreases in other various expenses as a result of our cost control efforts. If we do not accurately estimate the resources required or the scope of work to be performed, or we do not manage the projects properly within the planned period of time or satisfy our obligations under contracts, resulting contract margins could be materially different than those anticipated when the contract was executed. Any such reductions in contract margin could have a material negative impact on our operating results.

*Amortization of Acquired Technology.* Amortization of acquired technology consists of amortization of intangible assets acquired as a result of certain business combinations. Amortization of acquired technology expense decreased \$272,000 for the three months ended March 31, 2009 compared to the three months ended March 31, 2008, primarily due to decreased amortization as a result of the impairment of acquired technology recorded in the fourth quarter of 2008. We anticipate amortization of acquired technology to be \$1.1 million for the remaining nine months in 2009, \$1.3 million in 2010, \$626,000 in 2011, and \$261,000 in 2012.

<b>Research and Development</b> (In thousands, except for %'s)	<b>Three Months Ended March 31,</b>		<b>\$</b>	<b>%</b>	<b>Three Months Ended March 31,</b>	
	<b>2009</b>	<b>2008</b>			<b>% of</b>	<b>2008</b>
			<b>Change</b>	<b>Change</b>	<b>Revenue</b>	<b>% of</b>
Research and development	\$ 5,789	\$ 9,076	\$ (3,287)	(36)%	57%	45%

*Research and Development.* Research and development expenses consist primarily of personnel-related costs to support product development activities, including compensation and benefits, outside development services, travel and facilities cost allocations, and stock-based compensation charges. Research and development expenses decreased \$3.3 million for the three months ended March 31, 2009 compared to the three months ended March 31, 2008, primarily due to a decrease of approximately \$1.7 million in personnel expenses, a decrease of \$320,000 in the use of outside consultants, and a decrease of \$231,000 in travel expenses, all of which are the results of our cost control efforts. We anticipate our expenses in research and development will fluctuate in absolute dollars from period to period as a result of cost control initiatives and the timing of when we hire personnel as a result of the size and the timing of product development projects.

<b>Selling, General and Administrative</b> (In thousands, except for %'s)	<b>Three Months Ended March 31,</b>		<b>\$</b>	<b>%</b>	<b>Three Months Ended March 31,</b>	
	<b>2009</b>	<b>2008</b>			<b>% of</b>	<b>2008</b>
			<b>Change</b>	<b>Change</b>	<b>Revenue</b>	<b>% of</b>
Selling, general and administrative	\$ 4,413	\$ 6,299	\$ (1,886)	(30)%	43%	31%

*Selling, General and Administrative.* Selling, general and administrative expenses consist primarily of compensation and benefits for sales, marketing and general and administrative personnel in addition to outside sales commissions, legal and accounting services, marketing communications, travel and facilities cost allocations, and stock-based compensation charges. Selling, general and administrative expenses decreased \$1.9 million for the three months ended March 31, 2009 compared to the three months ended March 31, 2008, primarily due to a decrease of approximately \$758,000 in personnel expenses in the U.S. as a result of our cost control efforts, and a decrease of \$439,000 in legal fees due to additional fees incurred in the three months ended March 31, 2008 in defending our intellectual property rights. We anticipate our selling, general and administrative expenses will fluctuate in absolute dollars from period to period as a result of cost control initiatives and to support increased selling efforts in the future.

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Amortization of Other Acquired Intangible Assets (In thousands, except for %'s)	Three Months Ended March 31,		\$ Change	% Change	Three Months Ended March 31,	
	2009	2008			2009 % of Revenue	2008 % of Revenue
Amortization of other acquired intangible assets	\$ 87	\$ 194	\$ (107)	(55)%	1%	1%

*Amortization of Other Acquired Intangible Assets.* Amortization of other acquired intangible assets consists of amortization of intangibles acquired as a result of certain business combinations. Amortization of other acquired intangible assets for the three months ended March 31, 2009 decreased \$107,000 compared to the three months ended March 31, 2008, primarily due to decreased amortization as a result of the impairment of other acquired intangible assets recorded in the fourth quarter of fiscal 2008. We anticipate amortization of other acquired intangible assets to be \$256,000 in the remaining nine months in 2009, \$292,000 in 2010, \$204,000 in 2011, \$174,000 in 2012, and \$105,000 in 2013 and thereafter.

Restructuring Charges (In thousands, except for %'s)	Three Months Ended March 31,		\$ Change	% Change	Three Months Ended March 31,	
	2009	2008			2009 % of Revenue	2008 % of Revenue
Restructuring charges	\$ 633	\$ —	\$ 633	N/A	6%	—%

*Restructuring Charges.* Restructuring charges of \$633,000 for the three months ended March 31, 2009 consisted primarily of employee severance costs and were the result of our continued cost control efforts in light of current market conditions. There were no restructuring charges during the three months ended March 31, 2008.

Interest and Other Income, net (In thousands, except for %'s)	Three Months Ended March 31,		\$ Change	% Change	Three Months Ended March 31,	
	2009	2008			2009 % of Revenue	2008 % of Revenue
Interest and other income, net	\$ 324	\$ 489	\$ (165)	(34)%	3%	3%

*Interest and Other Income, net.* Interest and other income, net decreased \$165,000 for the three months ended March 31, 2009 compared to the three months ended March 31, 2008, primarily due to decreases in interest income, the result of lower interest rates and lower average cash, cash equivalents and investments balances during the period. We anticipate interest and other income will fluctuate in future periods as a result of our projected use of cash.

Income Tax Provision (Benefit) (In thousands, except for %'s)	Three Months Ended March 31,		\$ Change	% Change	Three Months Ended March 31,	
	2009	2008			2009 % of Revenue	2008 % of Revenue
Income tax provision (benefit)	\$ 264	\$ (617)	\$ 881	143%	3%	(3)%

*Income Tax Provision (Benefit).* Income tax provision increased \$881,000 for the three months ended March 31, 2009 to \$264,000 as compared to an income tax benefit of \$617,000 for the three months ended March 31, 2008. The income tax provision for the three months ended March 31, 2009 primarily consisted of foreign withholding taxes and statutory taxes associated with our foreign subsidiaries. The income tax benefit for the three months ended March 31, 2008 consisted of a tax benefit for the net loss during the period. We established a valuation allowance for deferred tax assets in the third quarter of 2008, which offset the benefit for fiscal year 2008.

**Liquidity and Capital Resources**

*Operating Activities*

Cash flows from operating activities consist of net loss adjusted for certain non-cash items and changes in assets and liabilities. Net cash used in operating activities was \$330,000 for the three months ended March 31, 2009, a decrease of \$427,000 compared to \$757,000 for the three months ended March 31, 2008, primarily due to a higher net loss and changes in taxes payable and other accrued liabilities, partially offset by decreases in both accounts receivable and prepaid expenses and other assets.

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Taxes payable and other accrued liabilities decreased \$624,000 during the three months ended March 31, 2009 compared to an increase of \$849,000 during the three months ended March 31, 2008. The decrease in taxes payable and other accrued liabilities during the three months ended March 31, 2009 was primarily due to the payment of accrued restructuring costs. The increase in taxes payable and other accrued liabilities during the three months ended March 31, 2008 was primarily due to the increase in taxes payable associated with foreign operations. Accounts receivable decreased \$4.6 million and \$62,000 during the three months ended March 31, 2009 and 2008, respectively. The decrease during the three months ended March 31, 2009 was primarily due to a decrease in revenue during the period coupled with customer collections. Prepaid expenses and other assets decreased \$1.5 million during the three months ended March 31, 2009, and increased \$509,000 during the three months ended March 31, 2008. The decrease in prepaid expenses and other assets during the three months ended March 31, 2009 was primarily due to the collection of a tax refund. The increase in prepaid and other assets during the three months ended March 31, 2008 was primarily due to an increase in deferred tax assets due to a net income tax benefit.

### ***Investing Activities***

Cash flows from investing activities consist of proceeds from investment maturities and sales, offset by payments for investments acquired and payments for capital expenditures. Net cash provided by investing activities was \$2.4 million for the three months ended March 31, 2009, an increase of \$3.9 million compared to net cash used in investing activities of \$1.5 million for the three months ended March 31, 2008. The Company did not purchase investments during the three months ended March 31, 2009. This is in comparison to purchases of \$8.8 million of investments during the three months ended March 31, 2008 which were partially offset by proceeds of \$4.9 million from investment maturities and sales. As of March 31, 2009, we had no investments in derivative securities.

### ***Financing Activities***

Cash flows from financing activities consist primarily of proceeds from sales of shares through employee equity incentive plans, offset by payments for the purchase of treasury stock, and principal payments on long-term obligations. Net cash provided by financing activities was \$366,000 for three months ended March 31, 2009, an increase of \$1.5 million compared to net cash used in financing activities of \$1.1 million for the three months ended March 31, 2008. During the three months ended March 31, 2009, we received proceeds of \$417,000 associated with our employee stock purchase plan and we did not repurchase any of our common stock on the open market. During the three months ended March 31, 2008, we repurchased 197,000 shares of our common stock at a cost of \$1.1 million.

### ***Liquidity***

As of March 31, 2009, our working capital was \$49.9 million, compared with \$56.3 million as of December 31, 2008. Cash and cash equivalents, and investments were \$39.9 million as of March 31, 2009 compared to \$40.7 million as of December 31, 2008, a decrease of \$1.6 million. The decrease in cash, cash equivalents, and short-term investments was primarily attributable to the negative effect of changes in foreign currency exchange rates. We anticipate that our overall expenses, as well as planned capital expenditures, may constitute a material use of our cash resources. In addition, we may use cash resources to repurchase common stock, fund potential investments in, or acquisitions of complementary products, technologies or businesses. We believe that our existing cash resources and anticipated funds from operations will satisfy our cash requirements to fund our operating activities, capital expenditures and other obligations for at least the next twelve months. However, in the event that during such period, or thereafter, we are not successful in generating sufficient cash flows from operations we may need to raise additional capital through private or public financings, strategic relationships or other arrangements, which may not be available to us on acceptable terms or at all.

As of March 31, 2009, our non-current investments included auction-rate securities with a fair value of \$718,000, which are variable rate debt instruments whose interest rates are reset through a “dutch” auction process at regular intervals, typically every 28 days. See Note 3 to “Notes to Condensed Consolidated Financial Statements (Unaudited)” and Item 3. “Quantitative and Qualitative Disclosures About Market Risk” in Part I in this Quarterly Report on Form 10-Q for further discussion.

We do not have any off-balance sheet arrangements, investments in special purpose entities or undisclosed borrowings or debt, other than operating leases on our facilities. As of March 31, 2009, other than Euro denominated receivables, we had no foreign currency contracts outstanding.

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The following table summarizes our known contractual obligations (in thousands):

Contractual obligations	Payments due by period					
	2009 (Nine months remaining)	2010-2011	2012-2013	Thereafter	Other	Total
Debt principal (1)	\$ 292	\$ 477	\$ —	\$ —	\$ —	\$ 769
Debt interest	15	18	—	—	—	33
Capital lease obligations (including interest)	17	11	—	—	—	28
Operating lease obligations	2,324	5,587	3,982	—	—	11,893
Unrecognized tax benefits (2)	—	—	—	—	3,354	3,354
Total	<u>\$ 2,648</u>	<u>\$ 6,093</u>	<u>\$ 3,982</u>	<u>\$ —</u>	<u>\$ 3,354</u>	<u>\$ 16,077</u>

(1) Amount represents the repayment of an interest free loan of €550,000 and a €400,000 Euros loan with a variable interest rate based on the EURIBOR plus 160 basis points.

(2) Due to the inherent uncertainty of the tax positions, it is not practicable to assign this liability to any particular years in the table.

Operating lease amounts include minimum rental payments under our operating leases for our office facilities, as well as computers, office equipment, and vehicles that we utilize under lease agreements. These agreements expire at various dates through 2013. Capital leases were contracted to purchase computer, software, office equipment, and vehicles in our French subsidiary.

### Item 3. Quantitative and Qualitative Disclosures About Market Risk.

The following discusses our exposure to market risk related to changes in interest rates and foreign currency exchange rates. We do not currently own any equity investments, nor do we expect to own any in the foreseeable future. This discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results could vary materially as a result of a number of factors.

*Interest Rate Risk.* As of March 31, 2009, we had cash and cash equivalents and short term investments of \$39.1 million. Cash and cash equivalents consisted of cash, highly liquid money market instruments and commercial paper with maturities of 90 days or less. Short-term investments consisted of debt securities with maturities of more than three months but less than twelve months. Because of the short maturities of these instruments, a sudden change in market interest rates would not have a material impact on the fair value of the portfolio. We would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest on our portfolio. A hypothetical increase in market interest rates of 100 basis points from the market rates in effect at March 31, 2009 would cause the fair value of these investments to decrease by an immaterial amount which would not have significantly impacted our financial position or results of operations. Declines in interest rates over time will result in decreased interest income.

As of March 31, 2009, we held auction-rate securities with a par value of \$1.0 million. Auction-rate securities are variable rate debt instruments whose interest rates are reset through a “dutch” auction process at regular intervals, typically every 28 days. A portion of these securities are insured by third party bond insurers and are collateralized by student loans guaranteed by governmental agencies and private entities. The liquidity of the securities has been negatively impacted by the uncertainty in the credit markets and the exposure of these securities to the financial condition of bond insurance companies. All of our auction-rate securities have failed to sell at auction since February 2008 due to an insufficient number of bidders. We reviewed the value of these securities for impairment as of March 31, 2009, and concluded that these securities continued to be temporarily impaired. During the year ended December 31, 2008, there was an unrealized loss of \$282,000 recorded as a component of accumulated other comprehensive income related to these auction rate securities. There was no additional impairment recorded during the three months ended March 31, 2009. In future periods, the estimated fair value of our auction-rate securities could decline further based on market conditions, which could result in additional impairment.

*Foreign Currency and Exchange Risk.* Certain of our sales contracts are denominated in a currency other than the functional currency of the selling entity. Therefore, a portion of our revenue is subject to foreign currency risks. The effect of an immediate 10% adverse change in exchange rates on foreign currency denominated receivables as of March 31, 2009 would result in a loss of an immaterial amount. As of March 31, 2009, we did not have outstanding hedging contracts, although we may enter into such contracts in the future. We intend to monitor our foreign currency exposure. Future exchange rate fluctuations may have a material negative impact on our business.

**Item 4. Controls and Procedures.**

*Evaluation of Disclosure Controls and Procedures.* Our management, with the participation of our principal executive officer and our principal financial officer, has evaluated the effectiveness of our “disclosure controls and procedures” (as such items are defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended, or the Exchange Act), as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on that evaluation, our principal executive officer and our principal financial officer have concluded that our disclosure controls and procedures are effective and designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms, and (2) is accumulated and communicated to our management, including our principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

*Changes in Internal Controls Over Financial Reporting.* There was no change in our internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Rule 13a-15 or Rule 15d-15 under the Exchange Act that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**PART II — OTHER INFORMATION**

**Item 1. Legal Proceedings.**

We are not party to any material pending legal proceedings.

**Item 1A. Risk Factors**

*The semiconductor market is volatile and unpredictable, which limits our ability to forecast our business and could negatively impact our results of operations.*

The semiconductor industry has experienced significant challenges in 2008 and continues to face challenges in 2009 as a result of the decline in the macroeconomic environment. As a provider to global semiconductor companies, we are subject to business cycles, the timing, length and volatility of which can be difficult to predict. The semiconductor industry historically has been cyclical due to sudden changes in customers’ manufacturing capacity requirements and spending, which depend in part on capacity utilization, demand for customers’ IC products, inventory levels relative to demand, and access to affordable capital. These changes have affected the timing and amounts of customers’ purchases and investments in our Design-to-Silicon-Yield solutions, and continue to affect our sales, operating expenses and net income. If we are not able to make adjustments to our business quickly to appropriately align our cost structure with prevailing market conditions in periods of low demand, or if we do not have sufficient resources to meet customers’ demands in periods of high demand, results could be negatively impacted and could differ greatly from our expectations.

*Our business is subject to risks associated with the ongoing financial crisis and weakening global economy.*

The recent severe tightening of the credit markets, turmoil in the financial markets, and weakening global economy are contributing to slowdowns in the semiconductor industry, which impacts our ability to make sales. These slowdowns are expected to worsen if these economic conditions are prolonged or deteriorate further. The markets for semiconductors depend largely on consumer spending. Economic uncertainty exacerbates negative trends in consumer spending and may cause some of our customers to delay or refrain altogether from entering into new engagements, licensing new or additional software products, or renewing maintenance and support for existing licensed software at historical levels. This will negatively affect our revenues. Difficulties in obtaining capital and deteriorating market conditions may also lead to the inability of some customers to obtain affordable financing for other purchases, which could tie up funds otherwise budgeted for purchases of our solutions and technologies. Customers with liquidity issues may also lead to additional bad debt expense. Further, these conditions and uncertainty about future economic conditions make it challenging for us to forecast our operating results, make business decisions, and identify the risks that may affect our business, financial condition and results of operations. If we are not able to timely and appropriately adapt to changes resulting from the difficult macroeconomic environment, our business, financial condition, and results of operations may be significantly negatively affected.



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***If semiconductor designers and manufacturers do not continue to adopt, or they significantly delay adoption of, our Design-to-Silicon-Yield solutions, our revenue will suffer.***

If semiconductor designers and manufacturers do not continue to adopt our Design-to-Silicon-Yield solutions, both as currently comprised and as we may offer them in the future, our revenue will decline. We may not be successful if we do not continue to enter into agreements with existing customers and new customers that cover a larger number of IC products and processes. If we do not develop new customer relationships with companies that are IDMs, fabless semiconductor companies, and foundries, as well as system manufacturers, the market acceptance of our solutions will suffer. Factors that may limit adoption of our Design-to-Silicon-Yield solutions by semiconductor companies include:

- our existing and potential customers' delay in their adoption of the next process technology;
- IDMs of logic ICs discontinuing or significantly cutting back their investment in the development of new process technology as a result of a shift to a model of outsourcing a larger proportion, or all, of the mass production of their ICs;
- our inability to keep pace with the rapidly evolving technologies and equipment used in the semiconductor design and manufacturing processes;
- our customers' failure to achieve satisfactory yield improvements using our Design-to-Silicon-Yield solutions; and
- our inability to develop, market, or sell effective solutions that are outside of our traditional MPS logic focus.

***Revenue from our gainshare performance incentives is dependent on factors outside of our control, including the volume of ICs that our customers are able to sell to their customers.***

Our gainshare performance incentives fee component ties the profits of our customers to our own. Through this component, revenue for a particular product is largely determined by the volume of that product that our customer is able to sell to its customers, which is outside of our control. Decreased demand for semiconductor products decreases the volume of products our customers are able to sell, which directly decreases our gainshare performance incentives revenue. Important factors that could cause demand for semiconductor products to negatively fluctuate include:

- changes in business and economic conditions, including the current downturn in the semiconductor industry and the overall economy; and
- decreases in consumer confidence caused by changes in market conditions, including changes in the credit market.

Also, our customers may unilaterally decide to implement changes to their manufacturing processes during the period that is covered by gainshare performance incentives, which could negatively affect yield results. Since we currently work on a small number of large projects, any product that does not achieve commercial viability or a significant increase in yield, or sustain significant volume manufacturing during the time we receive gainshare performance incentives, revenue from such customers could significantly reduce our revenue and results of operations below expectations. In addition, if we work with two directly competitive products, volume in one may offset volume, and thus any of our related gainshare performance incentives, in the other product.

***We may not be able to effectively implement our restructuring plans, and our restructuring plans may not result in the expected benefits on our planned schedule, or at all, which could negatively impact our future results of operations.***

During the year end December 31, 2008 and through March 31, 2009, we initiated restructuring plans in an effort to align our cost structure with expected revenue. We may not be able to successfully complete and realize the expected benefits of our restructuring plans, such as improvements in operating margins and cash flows, in the restructuring periods contemplated or at all. The restructuring plans may involve higher costs or a longer timetable than we currently anticipate, mainly due to the timing and execution of some plans and programs subject to local labor law requirements, and consultation with appropriate work councils. Our inability to realize these benefits may result in an inefficient business structure that could negatively impact our results of operations. We also expect our restructuring plans to cause us to incur substantial costs related to severance and other employee-related costs. Our restructuring plans may also subject us to litigation risks and expenses. In addition, our restructuring plans may have other consequences, such as attrition beyond our planned reduction in workforce or a negative impact on employee morale, and our competitors may seek to gain a competitive advantage over us. The restructuring plans could also cause our remaining employees to be less productive, which in turn may negatively affect our revenue and other operating results in the future.

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***We generate a large percentage of our total revenue from a limited number of customers, so decreased volumes at any one of these customers, or the loss of any one of these customers could significantly reduce our revenue and results of operations below expectations.***

Historically, we have had a small number of large customers for our core Design-to-Silicon-Yield solutions and we expect this to continue in the near term. In the three months ended March 31, 2009, two customers accounted for 40% of our total net revenue, with IBM representing 29% and Panasonic representing 11%. In the year ended December 31, 2008, two customers accounted for 34% of our total net revenue, with Toshiba Corporation representing 18% and IBM representing 16%. We could lose a customer due to its decision not to engage us on future process nodes, its decision not to develop its own future process node, or as a result of industry consolidation. The loss of any of these customers or a decrease in the sales volumes of their products could significantly reduce our total revenue below expectations. In particular, such a loss could cause significant fluctuations in results of operations because our expenses are fixed in the short term and it takes us a long time to replace customers.

***If we do not effectively manage and support our operations and integrate recent and planned growth, our business strategy may fail.***

We have in the past, and may in the future, experienced interruptions in our information systems on which our global operations depend. Further, physical damage to, failure of, or digital damage (such as significant viruses or worms) to, our information systems could disrupt and delay time-sensitive services or computing operations that we perform for our customers, which could negatively impact our business results and reputation. In addition, we must frequently expand our internal information system to meet increasing demand in storage, computing and communication. Our internal information system is expensive to expand and must be highly secure due to the sensitive nature of our customers' information that we transmit. Building and managing the support necessary for our growth places significant demands on our management and resources. These demands may divert these resources from the continued growth of our business and implementation of our business strategy. Further, we must adequately train our new personnel, especially our client service and technical support personnel, to effectively and accurately, respond to and support our customers. If we fail to do this, it could lead to dissatisfaction among our customers, which could slow our growth.

***Our stock price may be volatile, and our common stock could decline in value, increasing potential dilution to our stockholders, or we may be delisted from the NASDAQ Global Market.***

Our stock price has fluctuated widely during the last few years from a low closing price of \$0.97 per share during March 2009 to a high of \$19.36 per share during April 2006. This significant reduction in our stock price negatively impacts our ability to raise equity capital in the public markets and increases the cost to us, as measured by dilution to our existing shareholders, of equity financing. In addition, the reduced stock price also increases the cost to us, in terms of dilution, of using our equity for employee compensation or for acquisitions of other businesses. Additionally, in order for our common stock to continue to be quoted on the NASDAQ Global Market ("Nasdaq"), we must satisfy various listing maintenance standards established by Nasdaq, including, among other things, the general requirement, should Nasdaq choose to enforce such requirements again after the April 2009 end date of the current extension of suspension of any such enforcement, that our stock price consistently trades at or above \$1.00 per share and that the total market value of our common stock exceed \$50,000,000. We may have periods when our stock does not trade at, or the market value of our common stock has been below, the levels required by Nasdaq rules. If we were to be delisted from the Nasdaq and move to an alternative market, which may be less efficient and less broad-based, we may have difficulty accessing capital markets for additional funding, and the ability of our stockholders to sell any of our common stock at all would be severely, if not completely, limited, which could cause our stock price to decline further. Delisting could also have other negative results, including the potential loss of confidence by employees, the loss of institutional investor interest, and fewer business development opportunities. Also, significant volatility in the stock price could be followed by a securities class action lawsuit, which could result in substantial costs and a diversion of our management's attention and resources.

***If we fail to protect our IP rights, customers or potential competitors may be able to use our technologies to develop their own solutions which could weaken our competitive position, reduce our revenue, or increase our costs.***

Our success depends largely on the proprietary nature of our technologies. We currently rely primarily on contractual, patent, copyright, trademark, and trade secret protection. Our pending patent applications may not result in issued patents, and even if issued, they may not be sufficiently broad to protect our proprietary technologies. Litigation may be necessary from time to time to enforce our IP rights or to determine the validity and scope of the proprietary rights of others. As a result of any such litigation, we could lose our proprietary rights and incur substantial unexpected operating costs. Litigation could also divert our resources, including our managerial and engineering resources.

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### ***Competition in the market for yield improvement solutions and increased integration between IC design and manufacturing may intensify in the future, which could impede our ability to grow or execute our strategy.***

Competition in our market may intensify in the future, which could slow our ability to grow or execute our strategy and could lead to increased pricing pressure. Our current and potential customers may choose to develop their own solutions internally, particularly if we are slow in deploying our solutions or improving them to meet market needs. Many of these companies have the financial and technical capability to develop their own solutions. Also, competitors may be able to operate with a lower cost structure than our engineering organization, which would give any such competitor's products a competitive advantage over our solutions. There may be other providers of commercial solutions for systematic IC yield and performance enhancement of which we are not aware. We currently face indirect competition from the internal groups at IC companies and some direct competition from providers of yield management or prediction software such as KLA-Tencor, MKS Instruments, Inc. ("MKS") (through its acquisition of Yield Dynamics, Inc.), Mentor Graphics (through its acquisition of Ponte Solutions), TIBCO Software Inc. (through its acquisition of Spotfire Inc.), and Synopsys, Inc., and process control software, such as Applied Materials, Inc., BISTel Inc., and Tracom Technology, Inc., and MKS. Further, ARM Ltd. and Virage Logic Corporation provide standard cells in the physical IP space and Tela provides software for standard cell synthesis, each of which could compete with our pdBRIX solution. Some providers of yield management software or inspection equipment may seek to broaden their product offerings and compete with us. For example, KLA-Tencor has announced adding the use of test structures to one of their inspection product lines. In addition, we believe that the demand for solutions that address the need for better integration between the silicon design and manufacturing processes may encourage direct competitors to enter into our market. For example, large integrated organizations, such as IDMs, electronic design automation software providers, IC design service companies or semiconductor equipment vendors, may decide to spin-off a business unit that competes with us. Other potential competitors include fabrication facilities that may decide to offer solutions competitive with ours as part of their value proposition to their customers. In addition, Synopsys, Inc. now appears to offer directly competing DFM, while other EDA suppliers provide alternative DFM solutions that may compete for the same budgetary funds. If these potential competitors change the pricing environment or are able to attract industry partners or customers faster than we can, we may not be able to grow and execute our strategy as quickly or at all. In addition, customer preferences may shift away from our solutions as a result of the increase in competition.

### ***We face operational and financial risks associated with international operations that could negatively impact our revenue.***

We have in the past expanded our non-U.S. operations and may in the future continue such expansion by establishing overseas subsidiaries, offices, or contractor relationships in locations, if and when, deemed appropriate by our management. Thus, the success of our business is subject to risks inherent in doing business internationally, including in particular:

- some of our key engineers and other personnel are foreign nationals and they may have difficulty gaining access to the United States and other countries in which our customers or our offices may be located and it may be difficult for us to recruit and retain qualified technical and managerial employees in foreign offices;
- greater difficulty in collecting account receivables resulting in longer collection periods;
- language and other cultural differences may inhibit our sales and marketing efforts and create internal communication problems among our U.S. and foreign research and development teams, increasing the difficulty of managing multiple, remote locations performing various development, quality assurance, and yield ramp analysis projects;
- compliance with, inconsistencies among, and unexpected changes in, a wide variety of foreign laws and regulatory environments with which we are not familiar, including, among other issues, with respect to employees, protection of our IP, and a wide variety of operational regulations and trade and export controls under domestic, foreign, and international law;
- currency risk due to the fact that expenses for our international offices are denominated in the local currency, including the Euro, while virtually all of our revenue is denominated in U.S. dollars;
- quarantine, private travel limitation, or business disruption in regions affecting our operations, stemming from actual, imminent or perceived outbreak of human pandemic or contagious disease;
- in the event a larger portion of our revenue becomes denominated in foreign currencies, we would be subject to a potentially significant exchange rate risk; and
- economic or political instability, including but not limited to armed conflict, terrorism, interference with information or communication of networks or systems, and the resulting disruption to economic activity and business operations.

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Revenues generated from customers in Asia accounted for 54% of total revenue in the three months ended March 31, 2009 and 51% for the three months ended March 31, 2008. Thus, in Asia, in particular, we face the following additional risks:

- a downturn in Asian economies which could limit our ability to retain existing customers and attract new ones in Asia; and
- if the U.S. dollar increases in value relative to local currencies, including for example, the Japanese Yen, the cost of our solutions will be more expensive to existing and potential local customers and therefore less competitive.

In the Middle East, we use a third-party service provider, whose headquarters are not located in a U.S. embargoed country, to provide software quality assurance and other services for certain of our software products. The political uncertainty surrounding the region could disrupt our third-party service provider's operations and thus negatively affect the range of services we are able to provide or our cost for such services.

***Our earnings per share and other key operating results may be unusually high in a given quarter, thereby raising investors' expectations, and then unusually low in the next quarter, thereby disappointing investors, which could cause our stock price to drop.***

Historically, our quarterly operating results have fluctuated. Our future quarterly operating results will likely fluctuate from time to time and may not meet the expectations of securities analysts and investors in some future period. The price of our common stock has declined significantly in the recent past and may continue to decline if we fail to meet expectations about our revenue or expenses.

***Measurement of our gainshare performance incentives requires data collection and is subject to customer agreement, which can result in uncertainty and cause quarterly results to fluctuate.***

We can only recognize revenue based on gainshare performance incentives once we have reached agreement with our customers on their level of yield performance improvements. Because measuring the amount of yield improvement is inherently complicated and dependent on our customers' internal information systems, there may be uncertainty as to some components of measurement. This could result in our recognition of less revenue than expected. In addition, any delay in measuring revenue attributable to our gainshare performance incentives could cause all of the associated revenue to be delayed until the next quarter. Since we currently have only a few large customers and we are relying on gainshare performance incentives as a significant component of our total revenue, any delay could significantly harm our quarterly results.

***Changes in the structure of our customer contracts, including the mix between fixed and variable revenue and the mix of elements, including perpetual and term-based licenses, can adversely affect the amount and timing of our total revenue.***

Our long-term success is largely dependent upon our ability to structure our future customer contracts to include a larger gainshare performance incentives component relative to the fixed fee component. We typically recognize the fixed fee component earlier than the gainshare performance incentives component so if we are successful in increasing the gainshare performance incentives component of our customer contracts, we will experience an adverse impact on our operating results in the short term as we reduce the fixed fee component. Due to acquisitions and expanded business strategies, the mix of elements in some of our contracts has changed recently and the relative importance of the software component in some of our contracts has increased. We have experienced, and may in the future experience, delays in the expected recognition of revenue associated with generally accepted accounting principles regarding the timing of revenue recognition in multi-element software arrangements, including the effect of acceptance criteria as a result of the change in our contracts. If we fail to meet contractual acceptance criteria on time or at all, the total revenue we receive under a contract could be delayed or decline. Further, if we mix term-based licenses with perpetual licenses, it will impact the timing of the recognition of revenue from that customer. In addition, by increasing the gainshare performance incentives or the software component, we may increase the variability or timing of recognition of our revenue, and therefore increase the risk that our total future revenue will be lower than expected and fluctuate significantly from period to period.

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***It typically takes us a long time to sell our unique solutions to new customers and into new markets, and that can result in uncertainty and delays in generating revenue.***

Our gainshare performance incentives business model is unique and our Design-to-Silicon-Yield solutions are often unfamiliar to new customers. This results in a lengthier sales cycle compared to some of our competitors and requires a significant amount of our senior management's time and effort. Furthermore, we need to target those individuals within a customer's organization who have overall responsibility for the profitability of an IC. These individuals tend to be senior management or executive officers. We may face difficulty identifying and establishing contact with such individuals. Even after initial acceptance, due to the complexity of structuring the gainshare performance incentives component, the negotiation and documentation processes can be lengthy. It can take nine months or more to reach a signed contract with a customer. Unexpected delays in our sales cycle could cause our revenue to fall short of expectations. By way of example, one of the industries that we have recently targeted that we believe would greatly benefit from our yield management system and FDC technology is the rapidly growing solar panel industry. Our efforts to leverage our products in this industry may not be successful. Further, ongoing negotiations and evaluation projects with photovoltaic manufacturers may not result in significant revenue for us if we are unable to close new engagements in these markets on terms favorable to us, in a timely manner, or at all, or if we are unable to successfully deliver our products and services to such markets.

***We have a history of losses, we may incur losses in the future and we may be unable to reach, or thereafter maintain, profitability.***

We have experienced losses in the past and in the current fiscal year ended December 31, 2008. We may not achieve, and thereafter maintain, profitability if our revenue increases more slowly than we expect or if it decreases. In addition, virtually all of our operating expenses are fixed in the short term, so any shortfall in anticipated revenue in a given period could significantly reduce our operating results below expectations. Our accumulated deficit was \$119.9 million as of March 31, 2009. We expect to continue to incur significant expenses in connection with:

- funding for research and development;
- expansion of our solution implementation teams;
- expansion of our sales and marketing efforts; and
- additional non-cash charges relating to amortization and stock-based compensation.

As a result, if we do not significantly increase revenue to reach or maintain profitability on a quarterly or annual basis, our stock price could decline. We may be subject to additional impairment of our long-lived assets.

***We intend to pursue additional strategic relationships, which are necessary to maximize our growth, but could substantially divert management attention and resources.***

We have in the past, and may in the future, sought to establish and maintain strategic relationships with industry leaders at each stage of the IC design and manufacturing processes. This requires us to expend significant resources and to commit a significant amount of management's time and attention, although any such relationship may not be successful. If we are unable to enter into strategic relationships with these companies, we will not be as effective at modeling existing technologies or at keeping ahead of the technology curve as new technologies are introduced. In the past, the absence of an established working relationship with key companies in the industry has meant that we have had to exclude the effect of their component parts from our modeling analysis, which reduces the overall effectiveness of our analysis and limits our ability to improve yield.

***Our solution implementations may take longer than we anticipate, which could cause us to lose customers and may result in adjustments to our operating results.***

Our solution implementations require a team of engineers to collaborate with our customers to address complex yield loss issues by using our software and other technologies. We must estimate the amount of time needed to complete an existing solution implementation in order to estimate when the engineers will be able to commence a new solution implementation. In addition, our accounting for solution implementation contracts, which generate fixed fees, sometimes require adjustments to profit and loss based on revised estimates during the performance of the contract. These adjustments may have a material effect on our results of operations in the period in which they are made. The estimates giving rise to these risks, which are inherent in fixed-price contracts, include the forecasting of costs and schedules, and contract revenues related to contract performance.

***If we are not able to attract, retain, motivate, and strategically locate talented employees, including some key executives, our business may suffer.***

Our success and competitiveness depend on our ability to attract, retain, motivate, and strategically locate in our offices around the globe talented employees, including some of our key executives. Achieving this objective may be difficult due to many factors, including fluctuations in global economic and industry conditions, changes in our management or leadership, the hiring practices at our competitors or customers, cost reduction activities, and the effectiveness of our compensation programs, including equity-based programs. Further, we have had, and expect to continue to have, difficulty in obtaining visas permitting entry for some of our employees that are foreign nationals into the United States, and delays in obtaining visas permitting entry into other key countries, for several of our key personnel, which disrupts our ability to strategically locate our personnel. If we lose the services of any of our key executives or a significant number of our engineers, it could disrupt our ability to implement our business strategy. If we do not successfully attract, retain and motivate key employees, including key executives, we may be unable to realize our business objectives and our operating results may suffer.

***Inadvertent disclosure of our customers' confidential information could result in costly litigation and cause us to lose existing and potential customers.***

Our customers consider their product yield information and other confidential information, which we must gather in the course of our engagement with the customer, to be extremely competitively sensitive. If we inadvertently disclosed or were required to disclose this information, we would likely lose existing and potential customers and could be subject to costly litigation. In addition, to avoid potential disclosure of confidential information to competitors, some of our customers may, in the future, ask us not to work with key competitive products, which could limit our revenue opportunities.

***Our technologies could infringe the IP rights of others, causing costly litigation and the loss of significant rights.***

Significant litigation regarding intellectual property rights exists in the semiconductor industry. It is possible that a third party may claim that our technologies infringe their intellectual property rights or misappropriate their trade secrets. Any claim, even if without merit, could be time consuming to defend, result in costly litigation, or require us to enter into royalty or licensing agreements, which may not be available to us on acceptable terms, or at all. A successful claim of infringement against us in connection with the use of our technologies could adversely affect our business.

***Defects in our proprietary technologies, hardware and software tools, and the cost of support to remedy any such defects could decrease our revenue and our competitive market share.***

If the software, hardware, or proprietary technologies we provide to a customer contain defects that increase our customer's cost of goods sold and time-to-market or damage our customer's property, these defects could significantly decrease the market acceptance of our solutions. Further, the cost of support resources required to remedy any defects in our technologies, hardware, or software tools could exceed our expectations. Any actual or perceived defects with our software, hardware, or proprietary technologies may also hinder our ability to attract or retain industry partners or customers, leading to a decrease in our revenue. These defects are frequently found during the period following introduction of new software, hardware, or proprietary technologies or enhancements to existing software, hardware, or proprietary technologies. Our software, hardware, and proprietary technologies may contain errors not discovered until after customer implementation of the silicon design and manufacturing process recommended by us. If our software, hardware, or proprietary technologies contain errors or defects, it could require us to expend significant resources to remedy these problems, which could reduce margins and result in the diversion of technical and other resources from our other development efforts.

***Failing to maintain the effectiveness of our internal control over financial reporting could cause the cost related to remediation to increase and could cause our stock price to decline.***

In the future, our management may identify deficiencies regarding the design and effectiveness of our system of internal control over financial reporting that we engage in pursuant to Section 404 of the Sarbanes-Oxley Act ("Section 404") as part of our Form 10-K. Such deficiencies could include those arising from turnover of qualified personnel or arising as a result of acquisitions, which we may not be able to remediate in time to meet the continuing reporting deadlines imposed by Section 404 and the costs of which may harm our results of operations. In addition, if we fail to maintain the adequacy of our internal controls, as such standards are modified, supplemented or amended from time to time, we may not be able to ensure that our management can conclude on an ongoing basis that we have effective internal controls. We also may not be able to retain an independent registered public accounting firm with sufficient resources to attest to and report on our internal controls in a timely manner. Moreover, our registered public accounting firm may not agree with our management's future assessments and may deem our controls ineffective if we are unable to remediate on a timely basis. If in the future we are unable to assert that we maintain effective internal controls, our investors could lose confidence in the accuracy and completeness of our financial reports that in turn could cause our stock price to decline.

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***We may not be able to raise necessary funds to support our growth or execute our strategy.***

Unanticipated efforts to support more rapid expansion, develop or enhance Design-to-Silicon-Yield solutions, respond to competitive pressures or acquire complementary businesses or technologies could impact our future capital requirements and the adequacy of our available funds. In such event, we may need to raise additional funds through public or private financings, strategic relationships or other arrangements. We may not be able to raise necessary funds on terms favorable to us, or at all.

***Recent or potential acquisitions may adversely affect our business by diverting management's attention, increasing our expenses or by being more difficult to integrate than expected.***

Our success in realizing the strategic benefits, the timing of this realization, and growth opportunities to be gained from acquiring technology or companies and incorporating into PDF the operations of recently acquired businesses, including Si Automation S.A. ("SiA"), a French company, acquired in October 2006, and Fabbrix, Inc. ("Fabbrix"), a U.S. company, acquired in May 2007, and Triant Holdings, Inc. and Triant Technologies (2005) Inc. ("Triant"), both Canadian companies acquired in October 2008, depend upon our ability to successfully identify the technology or company, negotiate favorable terms, close the related transaction in a timely manner, and integrate those businesses or assets. We may be unable to identify suitable acquisition or investment candidates at reasonable prices or on reasonable terms, or consummate future acquisitions or investments at all or in a timely manner, each of which could slow our growth strategy. Further, the integration of acquired businesses or assets is a complex, costly and time-consuming process. The difficulties of combining our existing operations associated with acquired businesses or assets include:

- consolidating research and development operations;
- integrating acquired products and business technology into our existing product lines;
- coordinating effective sales and marketing functions;
- preserving research and development, marketing, customer and other important relationships; and
- minimizing the diversion of management's attention from ongoing business concerns.

***Changes in effective tax rates could negatively affect our operating results.***

We conduct our business globally and, as a result, are subject to taxation in the United States and foreign countries. Our future tax rates could be affected by numerous factors, including changes in tax laws or the interpretation of such tax laws and changes in accounting policies. Our filings are subject to reviews or audit by the Internal Revenue Service and state, local and foreign taxing authorities. We cannot be sure that any final determination in an audit would not be materially different than the treatment reflected in our historical income tax provisions and accruals. If additional taxes are assessed as a result of an audit, there could be a significant negative effect on our income tax provision and our operating results in the period or periods for which that determination is made.

***The uncertainty in the credit markets might impact the value of certain auction-rate securities we have and we might have to record impairment charges in the future.***

Credit concerns in the capital markets have significantly reduced our ability to liquidate auction-rate securities that we classify as non-current investment securities on our balance sheet. The liquidity of the securities has been reduced by the uncertainty in the credit markets and the exposure of these securities to the financial condition of bond insurance companies. All auction-rate securities we hold have been failing to sell at auction since February 2008 due to an insufficient number of bidders. We reviewed the value of these securities for impairment as of March 31, 2009, concluded that these securities were temporarily impaired, and have recorded an unrealized loss of \$282,000 as a component of accumulated other comprehensive income. In future periods, the estimated fair value of our auction-rate securities could decline further based on market conditions, which could result in additional impairment and could result in the need to classify such impairment as other than temporary, this resulting in a change to operations.

**Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.**

(b) *Use of Proceeds.* Our first registration statement, filed on Form S-1 (Registration No. 333-43192), related to our initial public offering and was declared effective by the SEC on July 26, 2001. There has been no change to the disclosure contained in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2005 with respect to the use of proceeds generated by our initial public offering.

(c) *Stock Repurchase.* The table below sets forth the information with respect to purchases made by or on behalf of the Company or any “affiliated purchaser” (as the term is defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934) of our common stock during the three months ended March 31, 2009 (in thousands except per share amounts):

**ISSUER PURCHASES OF EQUITY SECURITIES**

<b>Period</b>	<b>Total Number of Shares (or Units) Purchased</b>	<b>Average Price Paid Per Share (or Unit)</b>	<b>Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs (1)</b>	<b>Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs(1)</b>
Month #1 (January 1, 2009 through January 31, 2009)	—	—	—	\$ 1,559
Month #2 (February 1, 2009 through February 28, 2009)	—	—	—	\$ 1,559
Month #3 (March 1, 2009 through March 31, 2009)	—	—	—	\$ 1,559
Total	—	\$ —	—	—

(1) On March 26, 2003, our Board of Directors approved a share repurchase program to purchase up to \$10.0 million of our outstanding common stock. The program was completed in August 2007 with 988,000 shares repurchased at the average price of \$10.12. On October 29, 2007, the Board of Directors approved a new program to repurchase up to an additional \$10.0 million of the Company’s common stock on the open market. The right to repurchase stock under this program will expire on October 29, 2010. As of March 31, 2009, 2,428,000 shares had been repurchased at the average price of \$3.46 per share under this program and \$1.6 million remained available for future repurchases.

**Item 3. Defaults Upon Senior Securities.**

Not Applicable.

**Item 4. Submission of Matters to a Vote of Security Holders.**

No matters were submitted to a vote of security holders during the first quarter of 2009.

**Item 5. Other Information.**

None.



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**Item 6. Exhibits.**

<b>Exhibit Number</b>	<b>Description</b>
3.01	Third Amended and Restated Certificate of Incorporation of PDF Solutions, Inc. (incorporated herein by reference to registrant's Registration Statement on Form S-1/A filed July 9, 2001.)
3.02	Amended and Restated Bylaws of PDF Solutions, Inc. (incorporated herein by reference to registrant's Quarterly Report on Form 10-Q filed August 9, 2005.)
4.01	Specimen Stock Certificate (incorporated herein by reference to registrant's Quarterly Report on Form 10-Q filed September 6, 2001.)
4.02	Second Amended and Restated Rights Agreement dated July 6, 2001 (incorporated herein by reference to registrant's Registration Statement on Form S-1/A filed July 9, 2001.)
10.01	PDF Solutions, Inc. 2001 Stock Plan (incorporated herein by reference to registrant's Quarterly Report on Form 10-Q filed May 10, 2007) and related agreements (incorporated herein by reference to registrant's Registration Statement on Form S-1/A filed on July 9, 2001.)
10.02	PDF Solutions, Inc. 2001 Employee Stock Purchase Plan (incorporated herein by reference to registrant's Registration Statement on Form S-8 filed January 14, 2003.)
31.01	Certification of the President and Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.02	Certification of the Chief Financial Officer and Vice President of Finance pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.01	Certification of the President and Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. *
32.02	Certification the Chief Financial Officer and Vice President of Finance pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. *

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\* As contemplated by SEC Release No. 33-8212, these exhibits are furnished with this Quarterly Report on Form 10-Q and are not deemed filed with the Securities and Exchange Commission and are not incorporated by reference in any filing of PDF Solutions, Inc. under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

**PDF SOLUTIONS, INC.**

Date: May 11, 2009

By: /s/ JOHN K. KIBARIAN  
John K. Kibarian  
President and Chief Executive Officer  
(Principal Executive Officer)

Date: May 11, 2009

By: /s/ KEITH A. JONES  
Keith A. Jones  
Chief Financial Officer and Vice President of Finance  
(Principal Financial or Accounting Officer)

INDEX TO EXHIBITS

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## CERTIFICATIONS

I, John K. Kibarian, certify that:

1. I have reviewed this quarterly report on Form 10-Q of PDF Solutions, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ JOHN K. KIBARIAN

John K. Kibarian  
*President and Chief Executive Officer*  
*(Principal Executive Officer)*

Date: May 11, 2009

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## CERTIFICATIONS

I, Keith A. Jones, certify that:

1. I have reviewed this quarterly report on Form 10-Q of PDF Solutions, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ KEITH A. JONES

Keith A. Jones

*Chief Financial Officer and Vice President of Finance*

*(Principal Financial Officer)*

Date: May 11, 2009

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**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of PDF Solutions, Inc., or the Company, on Form 10-Q for the quarter ended March 31, 2009 as filed with the Securities and Exchange Commission on May 11, 2009, or the Report, I, John K. Kibarian, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ JOHN K. KIBARIAN

John K. Kibarian

*President and Chief Executive Officer  
(Principal Executive Officer)*

Date: May 11, 2009

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**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of PDF Solutions, Inc., or the Company, on Form 10-Q for the quarter ended March 31, 2009 as filed with the Securities and Exchange Commission on May 11, 2009, or the Report, I, Keith A. Jones, Chief Financial Officer and Vice President of Finance of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ KEITH A. JONES

Keith A. Jones

*Chief Financial Officer and Vice President of Finance  
(Principal Financial Officer)*

Date: May 11, 2009

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